EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-02

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-D-11-006	04/29/2011 To 03/31/2015 Base Option Period Number 3	Address MDL issues

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW:

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [X] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 04/01/2014 To 03/31/2015

Comments:
The work plan dated 04/25/14 has been reviewed and we concur with the labor mix, technical hours (378), ODCs, total estimated cost $55,524 and completion date 03/31/15 as specified. Due to budgetary constraints the contractor shall not exceed costs of $53,000 until authorized by a change in the WA.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations data use EPA Form 1900-69A.

SFO (Max 2):

LC	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee	LOE
Contract Period 04/29/2011 to 03/31/2015	$0.00	0
This Action	$55,524.00	378
Total	$55,524.00	378

Work Plan / Cost Estimate Approvals

		Cost/Fee	LOE
Contractor WP Dated	04/25/2014	$55,524.00	378
Cumulative Approved		$55,524.00	378

Work Assignment Manager Name: Kristen Benedict (Signature) (Date)		Branch/Mail Code: Phone Number: FAX Number:
Project Officer Name: ~~Karen C. Watson~~ MARGARET DOUGHERTY Act'g (Signature) (Date)		Branch/Mail Code: Phone Number: 919-541-3114 FAX Number:
Other Agency Official Name: (Signature) (Date)		Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Rodney-Daryl Jones Rodney-Daryl J (Signature) (Date) MAY 12 2014		Branch/Mail Code: Phone Number: 919-541-3112 FAX Number:

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Work Assignment

Work Assignment Number: 4-02

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-D-11-006	04/29/2011 To 03/31/2015 Base Option Period Number 3	Address MDL Issues

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: I & II

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 04/01/2014 To 03/31/2015

Comments:
This work assignment includes 125 hours for preparation of the work plan and to begin work on the work assignment. This document is IAW the CMM 7.3.5.1(D)

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations data use EPA Form 1900-69A

SFO (Max 2):

LIN	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period	Cost/Fee	LOE
04/29/2011 To 03/31/2015		
This Action		
Total		

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Kristen Benedict (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Project Officer Name: Karen C. Watson (Signature) (Date)	Branch/Mail Code: Phone Number: 919-541-3114 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Rodney-Daryl Jones Rodney-Daryl J (Signature) MAR 25 2015 (Date)	Branch/Mail Code: Phone Number: 919-541-3112 FAX Number:

Work Assignment

I. **Title:** Address MDL Issues
Contractor Name: Eastern Research Group
Contract #: EP-D-11-006
WA #: 4-02

II. **Work Assignment Manager (WAM):**
Kristen Benedict
U.S. EPA
Office of Air Quality Planning and Standards
Air Quality Assessment Division
Measurement Technology Group (E141-03)
Research Triangle Park, NC 27711

III. **Background:**
The Clean Air Act (CAA) establishes a national framework for air quality management in the United States. The 1990 amendments to the CAA, while leaving intact the basic structure of this program, mandated both new Federal programs for controlling air pollution and major philosophical changes in some of the existing programs. Notable new programs were the addition of a technology-based approach for controlling air toxics under Title III, the Title IV requirements for the reduction in acid deposition, and the addition of a federally mandated operating permits program under Title V.

The work to be performed under this work assignment supports the U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS) developing emissions standards for new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAP) for source categories and developing standardized prescriptive procedures to characterize emissions from a wide spectrum of controlled and uncontrolled sources (also known as source characterization) and to develop, evaluate and promote compliance assurance monitoring methods.

As part of the effort under this work assignment, the contactor may evaluate alternative test methods and monitoring procedures, develop and promote the proper and consistent application of stationary source and ambient air emissions test and monitoring methods in the development and enforcement of emissions control programs nationally, and develop, evaluate, and demonstrate new emissions measurement technology.

The goal of the tasks in this work assignment is to limit risks to the public from exposure to 188 hazardous air pollutants (HAPs) and criteria pollutants that are listed in the CAA. The maximum achievable control technology (MACT) standards have been published for almost all source categories. EPA continues to revise MACT standards and to include residual risk standards which are designed to reduce any unacceptable public health risks from major sources.

This work assignment is a continuation of ERG EPD11006 WA 3-02. No work will be duplicated from previous efforts.

IV. Description and Tasks:

Task #1: Work Plan
The Contractor shall initiate and coordinate the technical activities of the staff assigned to this project. The contractor shall prepare a work plan describing the technical approach for each of the tasks in this work assignment. In addition the contractor shall provide a cost and labor estimate for the total work assignment and the cost and labor required to complete each of the work assignment tasks. The contractor shall plan for monthly technical conference calls to brief the WAM and EPA team on progress or issues to complete each task. The Contractor shall provide monthly reports to the EPA contracting officer representative (COR) for this work assignment (WA). Monthly progress reports are required by the contract deliverables and must contain a summary of technical progress and work assignment resource use (labor and cost) information as required by the contract.

Task #2: QAPP Development for Task #3
Under technical direction of the WAM, the Contractor shall prepare draft and final Category III QAPP, which will address all technical and data collection of metals analysis data as outline in Task #3. The QAPP will be prepared in accordance with the format in EPA/240/B-01/003, "EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5)." After review, the Contractor shall address EPA's comments and provide the Final QAPP to EPA for approval.

Task #3: MDL Study
The Contractor shall locate an appropriate set of Method 29 samples for homogenization into a "seed" sample for this project. The set of samples shall be from a well controlled combustion source that contains a variety of metal and other interferents (e.g. excess post digestion samples from a municipal waste combustor compliance test). The contractor shall use this single sample for all spiking and analysis. The contractor shall analyzed the "seed" sample 7 times using ICP and ICP-MS techniques as described in Method 29/6010/6020 for all CAA toxic metals(Sb,Ar,Be,Cd,Cr,Co,Pb,Mn,Ni,Se) except for Hg (14 analysis total). The contractor shall also spike and analyze 7 aliquots of the "seed" sample with nominal levels 1, 3, 10, 50 ng/mL using ICP and ICP-MS(56 analysis total). The contractor shall summarize all results in a tabular form in a letter report. The letter report shall also include example calculations of the spike and spike recovery. The letter report shall include all raw data including cal curves, spike volumes, spike amounts, spike traceability, raw results, etc.

Task #4 QAPP Development for Task #5
Under technical direction of the WAM, the Contractor shall prepare draft and final Category III QAPPs addressing the data collection and technical analysis of carbon monoxide (CO) as outlined in Task #5. The QAPP will be prepared in accordance with the format in EPA/240/B-01/003, "EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5)." After review, the Contractor shall address EPA's comments and provide the Final QAPP to EPA for approval.

Task # 5 Low CO MDL Study
The Contractor shall evaluate low CO monitor performance using two identical CO monitors that meet the requirements of Method 10. The monitors will be set and calibrated to different span values (e.g. 0-10ppm and 0-200ppm) and tested using a matrix sample of CO, CO_2, and nitrogen or air, around a specified CO detection limit (e.g. 8.1ppm). Under technical direction of the WAM, the experiment shall be repeated twice more (e.g. for a 0-200ppm versus 0-1000ppm span around a CO detection limit of 40.5ppm and for a 0-10ppm versus 0-10ppm span around a CO detection limit of 0.76ppm). Each instrument shall be calibrated at the span per Method 10 and should consist of at least 5 points with at least one value below, one value at, and one value above the targeted CO detection limit. A data acquisition system should record and retain data on a 1 to 5 second scale. The contractor shall summarize all results in a tabular form in a letter report. The letter report shall include all raw data (e.g. calibration curves, gas certification of analysis, CO monitor interference check, etc).

Task #6 Collection of Additional Data
Upon technical direction, the Contractor shall gather readily available lab and/or test reports from well controlled combustion sources that contains relevant Method 29 data (e.g. matrix spike amount spiked values, matrix spike duplicate amount spiked values, matrix spike amount found values, matrix spike amount found duplicate values, matrix spike units, volumes, and percent recoveries) and provide the reports to EPA.

V. QA Requirements:
The contractor shall follow the appropriate QAPP for Tasks 3 and 5.

VI. Deliverables:
The Contractor shall adhere to the following schedule for each pollutant:

Task	Deliverable	Delivery Schedule
1	Work Plan	20 days after effective date of WA
2	Draft QAPP	8 weeks after effective date of WA
	Finalized QAPP	2 weeks after receiving comments
3	Letter Report	12 weeks after QAPP approval
4	Revised Work Plan	20 days after effective date of WA Mod*
5	Revised Draft QAPP	8 weeks after effective date of WA Mod*
	Revised Finalized QAPP	2 weeks after receiving comments
6	Revised Letter Report	12 weeks after revised QAPP approval
7.	Matrix Spike Data	3 weeks after revised letter report

*Mod is short for Modification